Krasniuk M. T., Ph.D., Assoc. Prof.
National University of Food Technologies (Kyiv)
Krasniuk S.O., Senior Lecturer
Kyiv National University of Technologies and Design (Kyiv)

ANALYSIS OF TEACHING EXPERIENCE AND PROSPECTS OF THE "DATA MINING" AND "DATA SCIENCE" DISCIPLINES IN LIGHT OF ACTUAL WORLD MACROECONOMIC AND EDUCATIONAL TRENDS

Introduction. Most businesses (scientific, service, commercial, manufacturing etc.) have been recording huge amounts of disparate information (quantitative, qualitative, textual, multimedia, etc.) over all aspects of their business during years. However, to hope that these data sets will substantially help businesses make quality strategic decisions without appropriate information processing technologies is futile. After all, in order to formulate the correct issues for making effective management decisions, an objective knowledge of the essence, relationships and patterns of the studied subject area are needed. Finding the facts you need in databases or data warehouses is not so difficult, but in today's information society, not only the facts themselves, but especially new knowledge are needed. The importance of knowledge for the organization and its further effective use has been recognized for many years by leading management theorists and practitioners, but the very concept of knowledge management requires a rethinking of traditional managerial thought. One of the definitions of the term “knowledge management” is an improvement of performance of functioning of an organization by improving its structure, discipline, and practice to collect and process knowledge within a corporation and share it with others. As an integral part of this concept, the new generation of intelligent systems - Data Mining systems have been created and widely used in developed countries.

Purpose. It can be argued that in the current conditions of the global economy development, and in connection with the emergence of new industries,

the use of data mining technology leads to additional competitive advantages for firms and corporations, and hence their investment attractiveness and capitalization. Recently, at the crossroads of several areas of information systems and technologies, this scientific direction was formed and is actively developing, the purpose of which is to find useful knowledge in corporate databases and data warehouses.

Basic material. In Western literature, the terms "Data Mining" and "Knowledge Discovery", "Data Science" are most commonly used to refer to this direction.

There are many variants of the definition of the term "Data Mining" in the scientific literature, but the most complex may be the interpretation: it is the process of identifying in the primary, accumulated as a result of processing business transactions of data, previously unknown or hidden regularity and models (patterns) for the purpose of making decisions.

Considering more than twenty years of development of this field and the fact that at the leading universities of the United States, Great Britain and EU, in the preparation of students of technical specialties, the study of subjects which are related to the concept of Data Mining widespreads.

For modern qualified Ukrainian IT specialists also an actual task is to understand technologies and algorithms of Data Mining, to understand their capabilities and perspectives, to be able to perform basic KDD operations.

In view of the above, and the requirements for an innovative component of educational activity within the Bologna process, most universities of Ukraine have introduced the teaching of "Data Mining" in the preparation of bachelors in computer science.

Conclusions. Analyzing long-term practice of teaching “Data Mining” for students of technical specialties, we can conclude that, despite the high level of requirements for basic mathematical training of students, the “Data Mining” course is very popular and, considering the latest scientific developments in the field of intellectual information systems, needs its development and advanced

study and at the master's level of training not only of bachelors, but also in the framework of MBI preparation, but not more advanced level using professional Data Sets (selected on the subject of master's degree projects).

Analyzing the experience of teaching IT subjects in economics at home universities, and studying bachelor's degree programs in economics at leading US, EU and GB universities, it is proposed to broadly introduce the “Data Science” curriculum into all Bachelor's degree plans of Ukraine. Given the relevant author's experience, it is important to emphasize the importance of adapting “Data Mining” work programs, lecture material and teaching style to the simplification, clarity and applied nature of the application, preparation of relevant study cases.